

Claims

1. Method for determining an error rate in a data transfer to a mobile-telephone device (8), comprising the following procedural stages:
 - transmission of transmission blocks (14.0,..., 14.11, 15.0,..., 15.11, 16.0,..., 16.11) to the mobile-telephone device under test (8),
 - reception and evaluation of the transmission blocks by the mobile-telephone device under test (8),
 - transmission of a first and/or a second marking ("ack", "nack") by the mobile-telephone device under test (8) for a correctly-evaluated transmission block or respectively an incorrectly-evaluated transmission block,
 - determination of the number of transmission blocks, which were transmitted to the mobile-telephone device under test (8), and which were incorrectly evaluated by the mobile-telephone device under test (8),
 - determination of an error rate from the number of incorrectly-evaluated transmission blocks, wherein the number of transmission blocks (B_{0_0} , B_{3_0} , B_{6_0} , B_{9_0} ; B_{0_1} , B_{1_1} , B_{5_1} , B_{10_1} ; B_{0_2} , B_{5_2} , B_{10_2} ; B_{1_3} ; B_{3_3} , B_{5_3} , B_{7_3} , B_{9_3}) of multiblocks (20, 21, 22, 23), which address the mobile-telephone device under test (8), is specified in a variable manner between one transmission block per multiblock (20, 21, 22, 23) and all of the transmission blocks of the multiblock (20, 21, 22, 23), wherein a multiblock (20, 21, 22, 23) contains a fixed number of

transmission blocks (B_{0_0} , ..., B_{11_0} , B_{0_1}, \dots, B_{11_1} , etc.).

2. Method according to claim 1,
5 **characterised in that**
one or more transmission blocks of several
transmission channels (14, 15, 16) respectively are
transmitted to the mobile-telephone device under
test (8).
10
3. Method according to claim 2,
characterised in that
the number and/or the arrangement of the
transmission blocks (B_{0_0} , B_{3_0} , B_{6_0} , B_{9_0} ; B_{0_1} , B_{1_1} ,
15 B_{5_1} , B_{10_1} ; B_{0_2} , B_{5_2} , B_{10_2} ; B_{1_3} ; B_{3_3} , B_{5_3} , B_{7_3} , B_{9_3}) of
a multiblock (20, 21, 22, 23), which are
transmitted to the mobile-telephone device under
test (8), is specified for each of the transmission
channels.
20
4. Method according to claim 2 or 3,
characterised in that
at least one transmission block (B_{0_0}, \dots, B_{11_0} ; $B_{0_1}, \dots,$
25 B_{11_1} ; $B_{0_2}, \dots, B_{11_2}; \dots$) of a multiblock (20, 21, 22,
23) is transmitted to the mobile-telephone device
under test (8) for each transmission channel (14,
15, 16) used by the mobile-telephone device under
test (8).
30
5. Method according to any one of claims 1 to 4,
characterised in that
the number of transmission blocks transmitted to
the mobile-telephone device under test (8) is

constant for multiblocks of the same transmission channel (14, 15, 16) disposed in time succession.

6. Method according to any one of claims 1 to 4,

5 **characterised in that**

the number of transmission blocks transmitted to the mobile-telephone device under test (8) is varied for multiblocks of the same transmission channel disposed in time succession relative to one another.

10

7. Method according to any one of claims 1 to 6,

characterised in that

15 the transmission blocks (B₀₀, B₃₀, B₆₀, B₉₀; B₀₂, B₅₂, B₁₀₂) transmitted to the mobile-telephone device under test (8) are arranged approximately uniformly within a multiblock (20, 22).

15

8. Method according to any one of claims 1 to 6,

20 **characterised in that**

the transmission blocks (B₀₁, B₁₁, B₅₁, B₁₀₁) transmitted to the mobile-telephone device under test (8) are arranged randomly within a multiblock (21).

25

9. Tester for determining an error rate in a data transmission to a mobile-telephone device, comprising

30 a transmitter device (26.1) for the transmission of transmission blocks,

a receiver device (26.2) for the reception of the first and/or second markings ("ack", "nack") transmitted by the mobile-telephone device under test (8),

an evaluation device (27) for determining the number of transmission blocks incorrectly evaluated by the mobile-telephone device under test (8) from the first and/or second markings ("ack", "nack") received and for determining an error rate from the number of incorrectly-evaluated transmission blocks, and

a selection device (28) for specifying in a variable manner the number of transmission blocks (B₀, ..., B₁₁₀; B₀₁, ..., B₁₁₁; B₀₂, ..., B₁₁₂; B₀₃, ..., B₁₁₃) of a multiblock (20, 21, 22, 23), which address the mobile-telephone device under test (8), between one transmission block per multiblock (20, 21, 22, 23) and all of the transmission blocks (B₀, ..., B₁₁₀; B₀₁, ..., B₁₁₁; B₀₂, ..., B₁₁₂; B₀₃, ..., B₁₁₃) per multiblock (20, 21, 22, 23), wherein a multiblock (20, 21, 22, 23) consists of a fixed number of transmission blocks (B₀, ..., B₁₁₀; B₀₁, ..., B₁₁₁; B₀₂, ..., B₁₁₂; B₀₃, ..., B₁₁₃).

20

10. Tester according to claim 9,
characterised in that
the selection device (28) comprises means (28.1), which address one or more transmission blocks (14.0, ... 14.11; 15.0, ..., 15.11; 16.0, ..., 16.11) of several transmission channels (14, 15, 16) to the mobile-telephone device under test (8).

25

11. Tester according to claim 10,
characterised in that
the selection device (28) comprises means (28.1) for specifying, separately for each of the several transmission channels (14, 15, 16), the number and/or the arrangement of the transmission blocks

30

(14.0,..., 14.11; 15.0,..., 15.11; 16.0,..., 16.11), which address the mobile-telephone device under test (8).

- 5 12. Tester according to any one of claims 9 to 11,
characterised in that

the number of transmission blocks, which address the mobile-telephone device under test (8), can be varied by the selection device (28) for multiblocks
10 disposed in time succession relative to one another.

13. Tester according to any one of claims 9 to 12,
characterised in that

15 the selection device (28) comprises means (28.1) for the uniform arrangement of the transmission blocks (B_{0_0} , B_{3_0} , B_{6_0} , B_{9_0} ; B_{0_2} , B_{5_2} , B_{10_2}) of a multiblock, which address the mobile-telephone device.

- 20
14. Tester according to any one of claims 9 to 12,
characterised in that
- the selection device (28) comprises means (28.1) for the random arrangement of the transmission
25 blocks (B_{0_1} , B_{1_1} , B_{5_1} , B_{10_1}) of a multiblock (21), which address the mobile-telephone device (8).